



HOMELAND SECURITY ADVANCED RESEARCH PROJECTS AGENCY INNOVATIVE MATERIALS FOR PPE | National Protection Center

PROGRAM OVERVIEW:

This is a Department of Homeland Security, Science and Technology funded effort to address multiple threat protection for emergency responder personnel through novel materials/material applications for protective garments. The program also leverages DoD funded innovative protective materials and materials systems programs.

The effort includes research, development, laboratory and technical demonstration of the protective material concepts, and novel surface management concepts.

APPROACH:

- Adapt neutralization chemistries for use against chemical warfare agents and Toxic Industrial Chemicals.
- Look at catalyst development, catalyst testing, catalyst attachment, anti-microbial and biocidal coatings and system modeling.
- Leverage and incorporate state of the art technologies such as nano-particles for CWA decontamination, flame resistant/retardant treatments and fibers, water repellent treatments, and anti-microbial treatments. It is a multi-disciplinary approach to a multi-hazard challenge.
- Aggressive integration of proven technologies and techniques to create a hybrid core material.
- Provide the opportunity for the operators to tailor their system according to the threat/environment.

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